

Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A continuous method of making a combinatorial library of materials comprising:

providing ~~at least one~~ a plug flow reactor,

introducing one or more components into the ~~at least one~~ plug flow reactor, and

introducing or changing over time in ~~at least one~~ the plug flow reactor to which the one or more components were added at least one variable affecting the one or more components to produce a combinatorial library of materials;

wherein the variable is selected from the group consisting of the type of component or starting material, the concentration of a component or starting material, the pressure in the reactor, the amount of actinic radiation supplied to a reaction zone, the type of energy supplied to a reaction zone, the type of component mixing, the degree of component mixture, the chemical reaction of components, the residence time, and/or where and/or when additional components are introduced into the plug flow reactor;

and wherein the combinatorial library of materials comprises at least one of the following: small-molecule materials, biological materials, biologically active materials, block copolymers, graft copolymers, tapered or gradient polymers, branched polymers, star polymers, comb polymers, network polymers, end-functional polymers, site specific functional polymers, and/or telechelic polymers.

2. (Original) The method of claim 1 further comprising evaluating the materials of the library.

3. (Canceled)

4. (Original) The method of claim 1 wherein the plug flow reactor comprises a stirred tube reactor.

5. (Original) The method of claim 1 wherein the plug flow reactor comprises an extruder.
6. (Original) The method of claim 1 wherein the plug flow reactor comprises a static mixer.
7. (Original) The method of claim 1 wherein the plug flow reactor comprises a stirred tube reactor in tandem with an extruder.
8. (Canceled)
9. (Original) The method of claim 1 wherein the changing of a variable is performed in a continuous manner.
10. (Original) The method of claim 1 wherein the changing of a variable is performed in a stepwise manner.
11. (Original) The method of claim 1 wherein the variable is physical mixing of components.
12. (Canceled)
13. (Original) The method of claim 12 wherein the chemical reaction is a polymerization method consisting of at least one of step-growth, chain-growth, and coordination.
14. (Original) The method of claim 13 wherein the coordination reaction uses a Ziegler Natta or metallocene catalyst.